

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

REC'D 12 JUL 2005

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To:

see form PCT/ISA/220

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY (PCT Rule 43bis.1)

Date of mailing
(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference
see form PCT/ISA/220

FOR FURTHER ACTION
See paragraph 2 below

International application No.
PCT/B2005/050909

International filing date (day/month/year)
15.03.2005

Priority date (day/month/year)
26.03.2004

International Patent Classification (IPC) or both national classification and IPC
G06F13/38, G06F15/173

Applicant
KONINKLIJKE PHILIPS ELECTRONICS N.V.

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA"). However, this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1b/s(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of three months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA:



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Authorized Officer

Bosch Vivancos, P

Telephone No. +31 70 340-2249



**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/IB2005/050909

Box No. I Basis of the opinion

1. With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
 - ☐ This opinion has been established on the basis of a translation from the original language into the following language , which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).
2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
 - a. type of material:
 - ☐ a sequence listing
 - ☐ table(s) related to the sequence listing
 - b. format of material:
 - ☐ in written format
 - ☐ in computer readable form
 - c. time of filing/furnishing:
 - ☐ contained in the international application as filed.
 - ☐ filed together with the international application in computer readable form.
 - ☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

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**Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or
Industrial applicability; citations and explanations supporting such statement**

1. Statement

Novelty (N)	Yes: Claims	6
	No: Claims	1,2,4,5,7,8
Inventive step (IS)	Yes: Claims	6
	No: Claims	3
Industrial applicability (IA)	Yes: Claims	1-8
	No: Claims	

2. Citations and explanations

see separate sheet

Re Item V

Reasoned statement with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

- 1 Reference is made to the following documents:

D1: Asynchronous interconnection and interfacing of Intellectual Property cores in the design of Systems-on-Chip. Jun XU.

D2: An efficient On-Chip NI offering Guaranteed services, shared memory abstraction and flexible network configuration. A. Rădulescu et al.

- 2 The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claims 1, 2, 4, 5, 7 and 8 is not new in the sense of Article 33(2) PCT.

- 2.1 Document D1 discloses and integrated circuit (figure 5.2.2.0.2) having a plurality of processing modules (Initiator, Target) and an interconnect means for coupling said plurality of processing modules and for enabling a device-level communication based on transactions between said plurality of processing modules (page 140), wherein at least one first processing module (Initiator) issues at least one transaction towards at least one second processing module (Target) comprising:

at least one transaction abortion unit (figure 5.2.2.1.2 Abort Group) for aborting at least one transaction issued from said first module by receiving an abort request (REQ_ABORT_RAW) issued by said first module (Initiator), by initiating a discard of said at least one transaction to be aborted, and by issuing a response (ACK_ABORTALL_RAW) indicating the success/failure of the requested transaction abortion.

Therefore, the subject-matter of **claim 1** is not new.

- 2.2 The same reasoning applies, mutatis mutandis, to the subject-matter of the corresponding independent claims 7 and 8, which therefore are considered not new.

- 2.3 Dependent claims 2, 4 and 5 do not contain any features which, in combination with the features of any claim to which they refer meet the requirements of the PCT in respect of novelty, see documents D1 and D2 and the corresponding

passages cited in the search report.

- 3 The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claim 3 does not involve an inventive step in the sense of Article 33(3) PCT.
- 3.1 Dependent **claim 3** does not contain any features which, in combination with the features of any claim to which it refers meet the requirements of the PCT in respect of inventive step, see documents D1 and D2 and the corresponding passages cited in the search report.
- 4 The combination of the features of dependent claim 6 is neither known from, nor rendered obvious by, the available prior art. The reasons are as follows:
The system of claim 6 differs from the system D1 in that the transaction abortion specifies which transactions are to be aborted and that the response issued by the transaction abortion unit specifies which of the requested at least one transaction have been aborted.
Therefore the subject-matter of claim 6 is new.
The technical effect of these differences is that it allows a finer grain in the specification of the transactions to abort as well as a more accurate view of the state of the system after an abort request.
The problem to be solved appears to be to off-load the interconnect and the modules from unnecessary transactions while keeping a consistent view of the state of the system.
Document D1 does not disclose nor suggest such modifications, therefore the subject-matter of **claim 6** appears to be inventive.

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1. Statement

Novelty (N)	Yes: Claims	6
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Inventive step (IS)	Yes: Claims	6
	No: Claims	3
Industrial applicability (IA)	Yes: Claims	1-8
	No: Claims	

2. Citations and explanations

see separate sheet

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- 2.3 Dependent claims 2, 4 and 5 do not contain any features which, in combination with the features of any claim to which they refer meet the requirements of the PCT in respect of novelty, see documents D1 and D2 and the corresponding

passages cited in the search report.

- 3 The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claim 3 does not involve an inventive step in the sense of Article 33(3) PCT.
- 3.1 Dependent **claim 3** does not contain any features which, in combination with the features of any claim to which it refers meet the requirements of the PCT in respect of inventive step, see documents D1 and D2 and the corresponding passages cited in the search report.
- 4 The combination of the features of dependent claim 6 is neither known from, nor rendered obvious by, the available prior art. The reasons are as follows:
The system of claim 6 differs from the system D1 in that the transaction abortion specifies which transactions are to be aborted and that the response issued by the transaction abortion unit specifies which of the requested at least one transaction have been aborted.
Therefore the subject-matter of claim 6 is new.
The technical effect of these differences is that it allows a finer grain in the specification of the transactions to abort as well as a more accurate view of the state of the system after an abort request.
The problem to be solved appears to be to off-load the interconnect and the modules from unnecessary transactions while keeping a consistent view of the state of the system.
Document D1 does not disclose nor suggest such modifications, therefore the subject-matter of **claim 6** appears to be inventive.